REMARKS

Claims 1-4, as amended, remain herein.

Claim 1 has been amended to recite constant angular velocity (CAV) means for controlling a spindle motor at an angular velocity lower than the maximum angular velocity assigned to CAV control from the start of spin-up processing of a disk-shaped recording medium to a read standby state. See applicants' specification, page 5, lines 13-15.

Claim 3 has been reworded to recite a method of spin-up processing for reproducing a disk-shaped recording medium on which a recording has been made at a constant linear velocity that is lower than a maximum angular velocity, during processing from start of spin-up to a read standby state. See claim 1 as originally filed and applicants' specification, page 5, lines 13-15. Claim 3 has been further amended to recite a step of changing the first angular velocity to a second angular velocity that is lower than a maximum angular velocity of the spindle motor, and sequentially acquiring a LEAD-IN final address, measuring constant linear velocity (CLV) of a recording medium, reading a table of contents (TOC) heading from the recording

medium, acquiring information for providing data with a high-level function (SUB-Q), performing a READ SET operation, and performing a HOLD Track operation. See applicants' specification, page 5, lines 7-24.

1. The objection to the specification is noted. Claims 1 and 3 have been amended as discussed above. The pertinent portions of the specification giving support for the changes have been cited. The claims are proper.

2. Claims 1 and 2 were rejected under 35 U.S.C. §102(b) as anticipated by Ishihara et al. U.S. Patent 5,805,548. The rejection is respectfully traversed.

Amended claim 1 is directed to an optical disk reproducing device for reproducing a disk-shaped recording medium on which a recording has been made, that medium including constant angular velocity (CAV) means for controlling a spindle motor at an angular velocity lower than the maximum angular velocity assigned to CAV control from start of spin-up processing of the

disk-shaped recording medium to a read standby state. This arrangement is nowhere disclosed in the cited reference.

Ishihara et al. '548 is asserted to disclose an optical disk reproducing device for reproducing a disk-shaped recording medium on which a recording has been made, including constant angular velocity means for controlling a spindle motor from start of spin-up processing of such a disk-shaped recording medium to a read standby state. Various portions of the patent are cited by the Examiner in support of his position. Ishihara et al. '548, column 9, lines 23-60, discloses a start-up procedure including steps S1 to S5; lines 32-35 of that column describe setting an initial arbitrary default speed, taking an initial reading of the TOC data on the inner region of the disk, and then following steps S2-S5, wherein a sequence of maximum speeds is set according to radial locations of data on the disk being read. Ishihara et al. '548 explains that by operating in this manner, the apparatus can perform data reading at a maximum sustain transfer rate (Tmax) at which the apparatus can perform data reading, as the head moves across the disk. Thus, the

Ishihara et al. '548 device does not achieve a stable number of rotations throughout such start-up.

In contrast to the operation of the Ishihara et al. '548 device, as explained in applicants' specification at page 5, lines 4-27, a sequence of speed control steps performed entirely by CAV control achieves a stable number of rotations from spin-up processing to a read standby state even if the optical head is out of focus, to reduce the time to wait for each rotation and shorten the seek time, thereby shortening the spin-up time. (See page 5, line 25 to page 6, line 2). Page 5, lines 13-15, describes changing an angular velocity to a half of a maximum rotational speed, and lines 25-26, describes all such sequence of steps being carried out by CAV control. This subject matter is recited in applicants' claim 1 as follows:

> constant angular velocity (CAV) means for controlling a spindle motor at a lower angular velocity than the maximum angular velocity assigned to CAV control during a period from start of spin-up processing of such a disk-shaped recording medium to a read standby state (emphasis added).

Ishihara et al. '548 does not disclose controlling a spindle motor at an angular velocity lower than the maximum angular velocity assigned to CAV control during a period from start of spin-up processing, as recited in applicants' claim 1.

For the foregoing reasons, Ishihara et al. '548 fails to disclose all elements of applicants' claimed invention, and therefore is not a proper basis for rejection under §102. Claim 2, which depends from claim 1, is allowable for the same reasons that claim 1 is allowable. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

2. Claims 3 and 4 were rejected under 35 U.S.C. §103(a) over applicants' admitted prior art ("AAPA") in view of Ishihara et al. '548. The rejection is also respectfully traversed.

Claim 1 is directed to a method of spin-up processing (1) for reproducing a disk-shaped recording medium on which a recording has been made at a constant linear velocity, and (2) for controlling a spindle motor attached to the recording medium to have a CAV control velocity that is lower than a maximum

angular velocity, during processing from start of spin-up to a read standby state. The method includes using constant angular velocity (CAV) control to control a first angular velocity of the spindle motor, changing the first angular velocity to a second angular velocity that is lower than a maximum angular velocity of the spindle motor, and sequentially acquiring a LEAD-IN final address, measuring constant linear velocity (CLV) of a recording medium, reading a table of contents (TOC) heading from the recording medium, acquiring information for providing data with a high-level function (SUB-Q), performing a READ SET operation, and performing a HOLD Track operation. This method is nowhere disclosed or suggested in the cited references.

The Examiner cites the description of CLV steps in the specification (the AAPA) and asserts that the steps correspond to the recitation of the method for CAV spin-up processing in claim 3. Actually, the AAPA method is not directed to spin-up processing (1) for reproducing a disk-shaped recording medium on which a recording has been made at a constant linear velocity, and (2) for controlling a spindle motor attached to the recording medium to have a CAV control velocity that is lower

than a maximum angular velocity, during processing from start of spin-up to a read standby state. As the Examiner admits in the Office Action, the method disclosed in the specification is a description of spin-up processing using CLV steps, which are not the same as CAV spin-up processing. Moreover, nowhere in the AAPA is there any description of a CAV control method that includes the sequence of (1) using CAV control to control a first angular velocity of the spindle motor, (2) changing the first angular velocity to a second angular velocity that is lower than a maximum angular velocity of the spindle motor, and (3) sequentially acquiring a LEAD-IN final address, measuring constant linear velocity (CLV) of a recording medium, reading a table of contents (TOC) heading from the recording medium, acquiring information for providing data with a high-level function (SUB-Q), performing a READ SET operation, and performing a HOLD Track operation, as recited in applicants' claim 3. Nor is there any teaching or suggestion that the AAPA steps described in the specification are interchangeable or similar to the steps of applicants' claim 3.

Although the Examiner cites Ishihara et al. '548 in support of the present rejection, Ishihara et al. '548 does not provide what is missing from the AAPA.

For the foregoing reasons, neither the AAPA nor Ishihara et al. '548 taken either alone or together contains any teaching, suggestion, reason, or motivation that would have led one of ordinary skill in the art to the claimed invention. Claim 4, which depends from claim 3, is allowable for the same reasons that claim 3 is allowable. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

The Examiner is thanked for acknowledging receipt of the certified copy of the priority document. The case is a national stage filing of a PCT application. The Examiner is asked to confirm that the copies were provided by the International Bureau.

All claims 1-4 are now proper in form and patentably distinguish over all grounds of rejection stated in the Office Action. Accordingly, allowance of all claims 1-4 is respectfully requested.

Should the Examiner deem that any further action by the applicants would be desirable to place this application in even better condition for issue, the Examiner is requested to telephone applicants' undersigned representatives.

Respectfully submitted,

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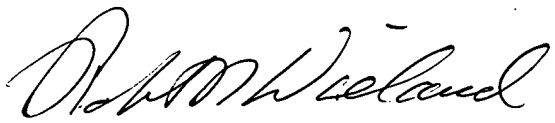

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